What is claimed is:

1. A method of treating a tumor in a subject which comprises administering to the subject an amount of a radiolabeled antibody effective to treat the tumor, where the radiolabeled antibody binds to a cellular component released by a dying tumor cell.

2. A method of imaging a tumor in a subject which comprises administering to the subject an amount of a radiolabeled antibody effective to image the tumor, where the radiolabeled antibody binds to a cellular component released by a dying tumor cell.

3. The method of claim 1 or 2, wherein the cellular component is selected from the group consisting of a histone, a mitochondrial protein, a cytoplasmic protein, a pigment, and melanin.

4. The method of claim 3, wherein the tumor is a melanoma and the cellular component is melanin.

5. A method for treating a melanin-containing melanoma in a subject which comprises administering to the subject an amount of a radiolabeled anti-melanin antibody effective to treat the melanoma.

6. A method for imaging a melanin-containing melanoma in a subject which comprises administering to the subject an amount of a radiolabeled anti-melanin antibody effective to image the melanoma.

7. The method of claim 1 or 5 wherein the antibody is labeled with an alpha-emitting radioisotope.

8. The method of claim 7 wherein the alpha-emitting radioisotope is 213-Bismuth.

9. The method of claim 1 or 5 wherein the antibody is labeled with a beta-emitting radioisotope.

10. The method of claim 9 wherein the beta-emitting radioisotope is 188-Rhenium.

11. The method of claim 1 or 5 wherein the antibody is labeled with a radioisotope selected from the group consisting of a positron emitter and an admixture of any of an alpha emitter, a beta emitter, and a positron emitter.

12. The method of claim 2 or 6 wherein the antibody is labeled with a radioisotope selected from the group consisting of a beta emitter, a positron emitter, and an admixture of a beta emitter and a positron emitter.

13. The method of claim 2 or 6 wherein the antibody is labeled with a radioisotope selected from the group consisting of 99m-Technetium, 111-Indium, 67-Gallium, 123-Iodine, 124-Iodine, 131-Iodine and 18-Fluorine.

14. The method of claim 1, 2, 5 or 6 wherein the subject is a mammal.

15. The method of claim 14 wherein the mammal is a human.

16. The method of claim 1 or 5 wherein the dose of the radioisotope is between 1-1000 mCi.

17. The method of claim 1, 2, 5 or 6 wherein the antibody is a monoclonal antibody.

18. The method of claim 1, 2, 5 or 6 wherein the antibody is a $F(ab')_2$ fragment or a Fab' fragment of a whole antibody.

19. The method of claim 1, 2, 5 or 6 wherein the antibody is an IgM antibody, an IgG antibody, or an IgA antibody.

20. The method of claim 1, 2, 5 or 6 wherein the antibody is a peptide.

21. The method of claim 20, wherein the peptide is positively charged.

22.   The method of claim 20, wherein the peptide is a decapeptide.

23.   The method of claim 22, wherein the decapeptide is 4B4 (YERKFWHGRH) (SEQ ID NO:1).

24.   The method of claim 5 or 6 wherein the antibody is 6D2.

25.   The method of claim 1, 2, 5 or 6 wherein uptake of radiolabeled antibody by the kidney is inhibited by administering a positively charged amino acid to the subject.

26.   The method of claim 25, wherein the amino acid is D-lysine.

27.   The method of claim 1 or 5 which further comprises administering to the subject an amount of antibodies radiolabeled with a plurality of different radioisotopes.

28.   The method of claim 27, wherein the radioisotopes are isotopes of a plurality of different elements.

29.   The method of claim 27, wherein at least one radioisotope is a long range emitter and at least one radioisotope is a short range emitter.

30.   The method of claim 29, wherein the long-range emitter is a beta emitter and the short range emitter is an alpha emitter.

31.   The method of claim 30, wherein the beta emitter is 188-Rhenium and the alpha emitter is 213-Bismuth.

32.   The method of claim 27, wherein the plurality of different radioisotopes is more effective in treating the tumor than a single radioisotope within the plurality of different radioisotopes, where the radiation dose of the single radioisotope is the same as the combined radiation dose of the plurality of different radioisotopes.

33.	The method of claim 5 or 6 wherein uptake of radiolabeled anti-melanin antibody in the melanoma is at least 10 times greater than in surrounding muscle.

34.	The method of claim 33, wherein the antibody is a peptide that binds to melanin.

35.	The method of claim 5 or 6 wherein the radiolabeled anti-melanin antibody is not taken up by non-cancerous melanin-containing tissue.

36.	The method of claim 35, wherein the non-cancerous melanin-containing tissue is hair, eyes, skin, brain, spinal cord, and/or peripheral neurons.

37.	The method of claim 1 or 5, which comprises multiple administrations of the radiolabeled antibody to the subject.

38.	A method of making a composition effective to treat a melanin-containing melanoma in a subject which comprises admixing a radiolabeled anti-melanin antibody and a carrier.

39.	A method of making a composition effective to image a melanin-containing melanoma in a subject which comprises admixing a radiolabeled anti-melanin antibody and a carrier.

40.	A composition made by the method of claim 38 or 39.